

Notice of Allowability	Application No.	Applicant(s)	
	09/468,015	EGGERT ET AL.	
	Examiner	Art Unit	
	Tanh Q. Nguyen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed June 16, 2006.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with the attorney for applicant, Jaison C. John (Reg. No. 50,737) on August 22, 2006 to clarify the scope of the claims, correct minor informalities and put the application in condition for allowance. Claim 24 was inadvertently omitted by applicant in the response filed June 16, 2006 and was authorized to be included with this office action by the attorney for applicant.

The application has been amended as follows:

In the claims:

claim 1, line 6: inserted --each one of-- before "said plurality of ESD clamp devices"

claim 2, line 3: inserted --surface-- after "integrated circuit die"

claim 4, line 11, replaced "plurality of vias" in both instances with --plurality of conductive vias--

claim 4, line 15: inserted --each one of-- before "said plurality of ESD clamp devices"

claim 18, line 15: inserted --each one of-- before "said plurality of ESD clamp devices"

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claim 21, line 6: inserted --each one of-- before “said plurality of ESD clamp devices”

claim 23, line 3: inserted --surface-- after “integrated circuit die”

24. (Previously Presented) The device of claim 21, wherein said plurality of turns and said plurality of ESD clamp devices are fabricated on an integrated circuit die.

In the specification:

replaced the Abstract with an amended Abstract - on the following page.

ELECTROSTATIC DISCHARGE PROTECTION NETWORK HAVING DISTRIBUTED COMPONENTS

Abstract of the Disclosure

An electrostatic discharge protection network comprising electrostatic discharge (ESD) clamp devices distributed between turns of a coil shaped inductor. The inductance of the coil shaped inductor and parasitic capacitance of the ESD clamp devices form a low pass filter structure having a very high cut-off frequency. Below the low pass filter cutoff frequency, the capacitive influence of the ESD clamp devices are cancelled by the series inductance of the coil shaped inductor. The turns of the coil shaped inductor may be fabricated on insulation layers proximate to one another so as to achieve close magnetic coupling there between, thereby achieving a larger inductance value for a given sized coil structure. Improved input and output impedance matching is also achieved by adjusting the inductive and capacitive components of the low pass filter structure formed by the coil shaped inductor and capacitance of the ESD clamp devices. ~~The components of the electrostatic discharge protection network may be fabricated on a non-conductive substrate of various types of materials, on a printed circuit board or chassis with discrete components, and a monolithic semiconductor integrated circuit die.~~

Drawings

2. The drawings received on May 10, 2002 are acceptable. However, the examiner requests that applicant resubmits pages 1/5 and 2/5 of the drawings, as a working set of the drawings with the examiner's notes (instead of the file copy) was inadvertently scanned - see copies of the drawings attached. The scanned set will be used for publication.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

The prior art, individually, does not teach each one of a plurality of ESD clamp devices being connected to a corresponding one of a plurality of turns of an inductor.

The prior art, individually, does not teach each one of a plurality of ESD clamp devices being connected to a corresponding one of the coil turns of a plurality of conductive layers.

The prior art, individually, does not teach connecting each one of a plurality of ESD clamp devices to a corresponding one of the coil turns of a plurality of conductive layers.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Q. Nguyen whose telephone number is 571-272-4154. The examiner can normally be reached on M-F 9:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


August 22, 2006

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August 22, 2006

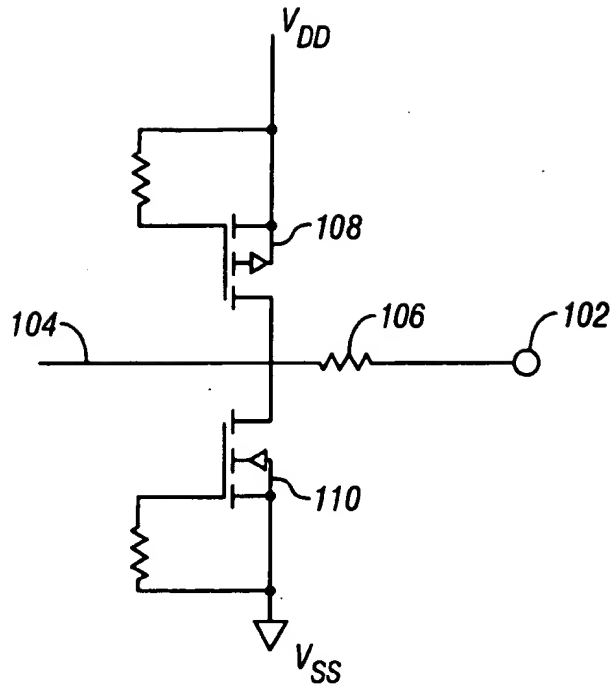


FIG. 1
(Prior Art)

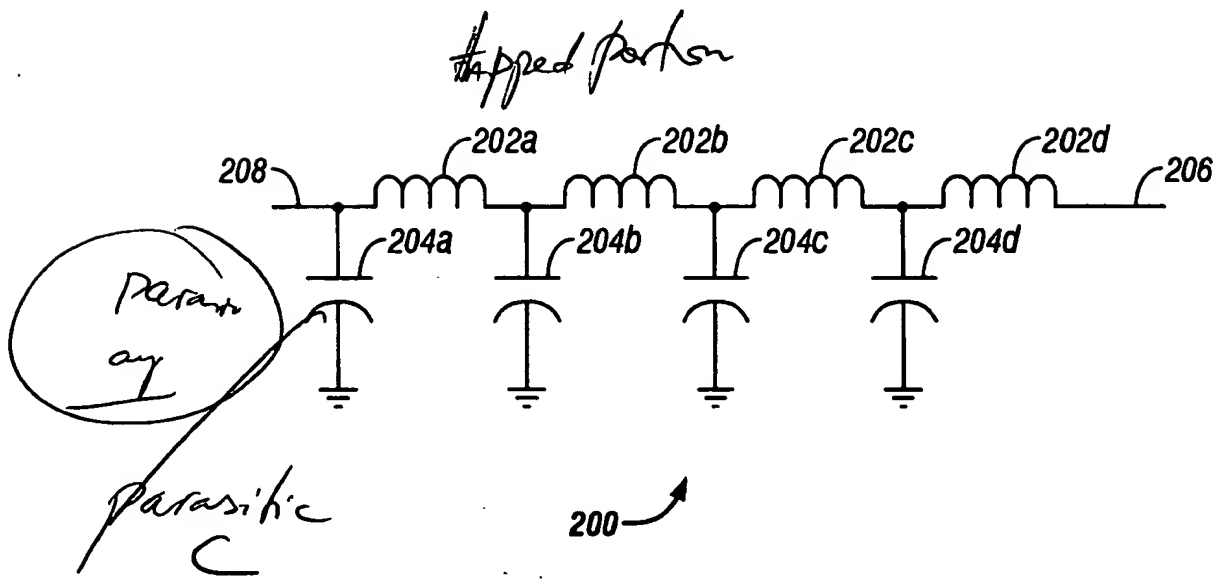


FIG. 2

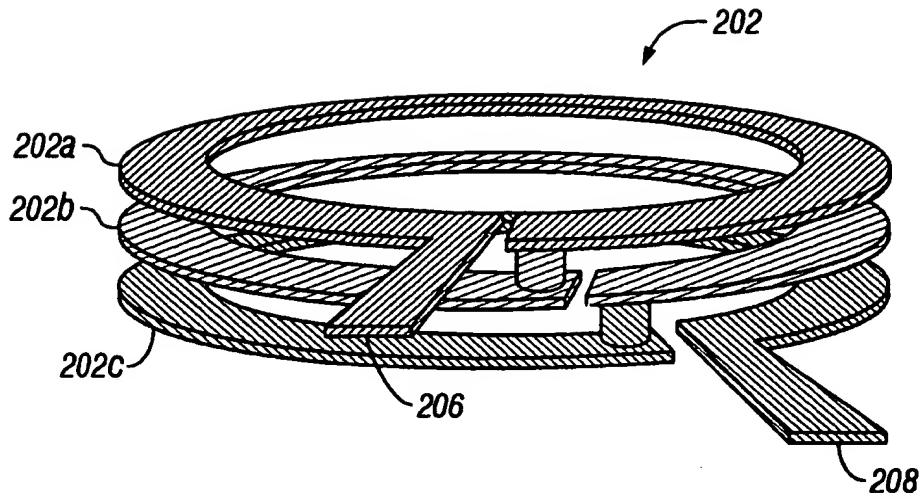


FIG. 3

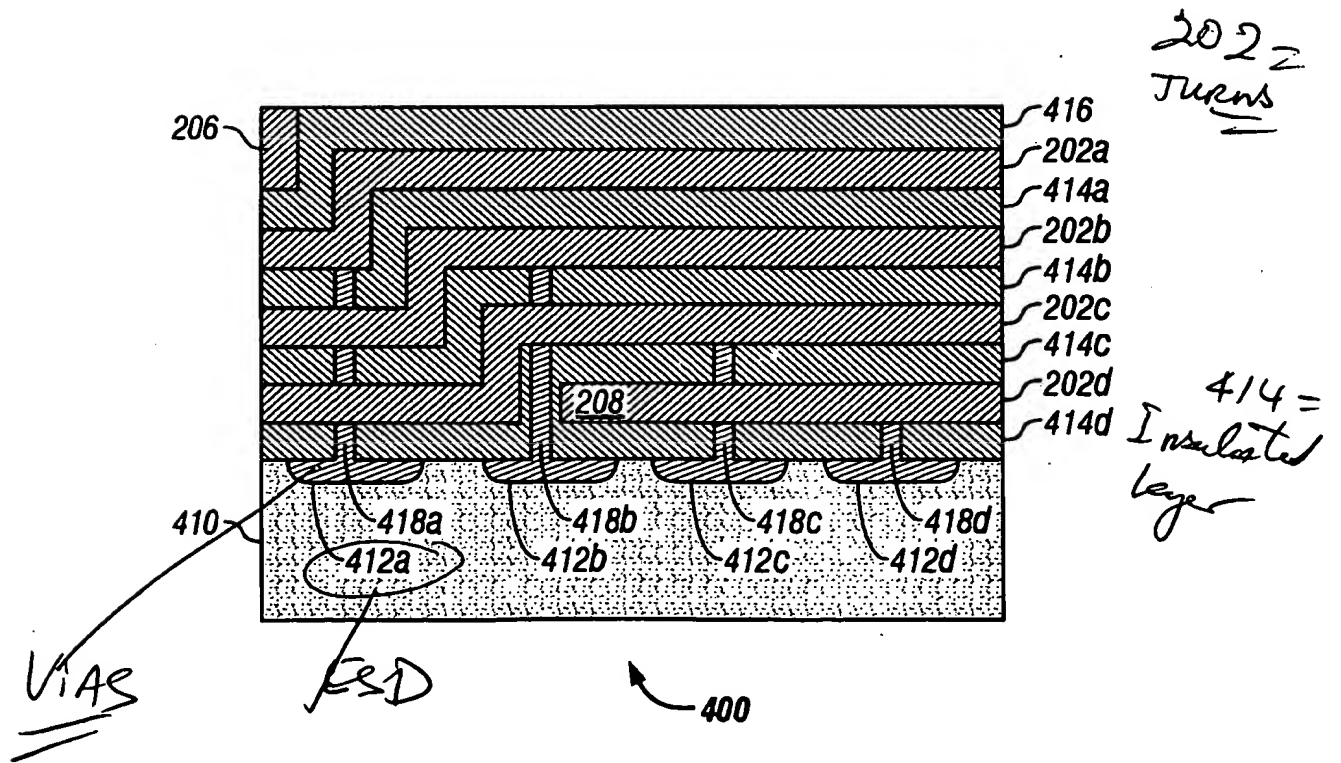


FIG. 4